

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of manufacture of a styrene-butadiene latex comprising:

~~manufacture of~~manufacturing a core latex of styrene-butadiene polymers through emulsion polymerization;

~~multiple coating of shell polymers onto the outer side of said core latex~~adding monomers and a chain transfer agent to the core latex when a conversion ratio in the manufacturing of the core latex is 55 to 95% to polymerize the monomers on the core latex through emulsion polymerization; and

adding the chain transfer agent alone when a conversion ratio of an outermost layer is 60 to 95%~~adjustment of to select [[the]]~~a gel content and a molecular weight of the outermost layer of the latex ~~by adding a chain transfer agent singly after manufacture of said shell polymers.~~

2. (Currently Amended) The method of manufacture of a styrene-butadiene latex according to Claim 1, wherein said latex is manufactured through emulsion polymerization of a core composition comprised of styrene, 1,3-butadiene, an ethylenic unsaturated acid monomer, a cyanovinyl monomer, a monomer that ~~may be~~ copolymerized copolymerizable with said monomers, and ~~[[a]]~~ the chain transfer agent.

3. (Currently Amended) The method of manufacture of a styrene-butadiene latex according to Claim 2, wherein said core composition is comprised of 35 to 90 parts by weight of styrene, 10 to 55 parts by weight of 1,3-butadiene, 1 to 18 parts by weight of ~~[[an]]the~~ ethylenic unsaturated acid monomer, 0.5 to 15 parts by weight of ~~[[a]]the~~ cyanovinyl monomer, 1 to 25 parts by weight of ~~[[a]]the~~ monomer ~~that may be copolymerized~~ copolymerizable with said monomers, and 0.1 to 1.0 parts by weight of ~~[[a]]the~~ chain transfer agent.

4. (Currently Amended) The method of manufacture of a styrene-butadiene latex according to Claim 1, wherein said shell polymers are manufactured through emulsion polymerization of a shell composition comprised of styrene, 1,3-butadiene, an ethylenic unsaturated acid monomer, a cyanovinyl monomer, a monomer ~~that may be copolymerized~~ copolymerizable with said monomers, and ~~[[a]]the~~ chain transfer agent.

5. (Currently Amended) The method of manufacture of a styrene-butadiene latex according to Claim 4, wherein said shell composition is comprised of 30 to 80 parts by weight of styrene, 10 to 70 parts by weight of 1,3-butadiene, 0.5 to 18 parts by weight of an ethylenic unsaturated acid monomer, 1.0 to 20 parts by weight of a cyanovinyl monomer, 1.0 to 20 parts by weight of a monomer ~~that may be copolymerized~~ copolymerizable with said monomers, and 0.1 to 5.0 parts by weight of ~~[[a]]the~~ chain transfer agent.

6. (Currently Amended) The method of manufacture of a styrene-butadiene latex according to Claim 1, wherein said chain transfer agent is a mercaptan having 7 to 16 carbon atoms.

7. (Original) The method of manufacture of a styrene-butadiene latex according to Claim 1, wherein the amount of use of said chain transfer agent is 0.05 to 5.0 parts by weight.

8. (Previously Presented) The method of manufacture of a styrene-butadiene latex according to Claim 2, wherein said ethylenic unsaturated acid monomer is:

one or more kinds of unsaturated carboxylic acids selected from a group of methacrylic acid, acrylic acid, itaconic acid, crotonic acid, fumaric acid, and maleic acid; or

one or more kinds of unsaturated polycarboxylic acid alkyl esters having one or more carboxyl radicals selected from a group of itaconic acid monoethyl ester, fumaric acid monobutyl ester, and maleic acid monobutyl ester.

9. (Previously Presented) The method of manufacture of a styrene-butadiene latex of Claim 2, wherein said cyanovinyl monomer is acrylonitrile or methacrylonitrile.

10. (Currently Amended) The method of manufacture of a styrene-butadiene latex according to Claim 2, wherein said monomer ~~that may be copolymerized~~copolymerizable with said monomers is one or more ~~kinds of~~ compounds selected from ~~[[a]]the~~ group consisting of:

unsaturated carboxylic acid alkyl esters ~~which may be of~~ methyl acrylate, methyl methacrylate, ethyl acrylate, ethyl methacrylate, butyl acrylate, or butyl methacrylate;

unsaturated carboxylic acid hydroxyalkyl esters ~~which may be of~~ β -hydroxyethyl acrylate, β -hydroxypropyl acrylate, or β -hydroxyethyl methacrylate;

unsaturated carboxylic acid amides ~~which may be of~~ acrylamide, methacrylamide, itaconamide, or maleic acid monoamide, or their derivatives; and

aromatic vinyl monomers ~~which may be of~~ α -methylstyrene, vinyl toluene, or P-methylstyrene.

11. (Original) The method of manufacture of a styrene-butadiene latex according to Claim 1, wherein the gel content of said styrene-butadiene latex manufactured finally is 30 to 90%.

12. (Original) The method of manufacture of a styrene-butadiene latex according to Claim 1, wherein the glass transition temperature of said core latex is -10 to 50°C, and the glass transition temperature of said shell polymers is -20 to 40°C.

13. (Original) The method of manufacture of a styrene-butadiene latex according to Claim 1, wherein the average particle diameter of said core latex is 40 to 90 nm, and the average particle diameter of said styrene-butadiene latex manufactured finally is 130 to 260 nm.

14. (Withdrawn) A styrene-butadiene latex manufactured according to Claim 1.

15. (Withdrawn) A paper coating solution including a styrene-butadiene latex manufactured according to Claim 1.

16. (Withdrawn) Coated paper coated with a paper coating solution including a styrene-butadiene latex manufactured according to Claim 1.

17. (Withdrawn-Currently Amended) A styrene-butadiene latex, comprising a structure in which multiple layers of styrene-butadiene polymers are coated onto [[the]]an outer side of [[the]]a core latex of said styrene-butadiene polymers as shell polymers.